

REMARKS

Claims 16, 17, and 20-36 are pending in the application. Claims 16, 22, 31 and 32 have been amended as discussed below. Claims 18 and 19 have been cancelled.

Applicant wishes to thank Examiner Andler for the courtesy of an interview with Applicant's representative to review the proposed claims and the Office Action. It is Applicant's understanding that the claim amendments above, which are identical to the claim amendments informally submitted on August 5, 2010, distinguish the invention over the current rejections in the Office Action. Applicant, therefore, is formally submitting herewith the claim amendments and remarks previously discussed with the Examiner.

§102 Rejection

Claims 31-36 have been rejected under U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,974,150 (Kaish et al.). The Examiner has asserted that Kaish discloses a detector as claimed for verifying that a plurality of objects are genuine using electromagnetic radiation (e.g., UV or IR) and including, among other components, image analysis equipment for detecting a unique alphanumeric code from identification elements on the object.

In the office action, it was noted that the claim did not specify the means for determining that the elements are "indistinguishable". By "detectable" the applicant meant "detectable by the naked eye", and by "indistinguishable" the applicant meant "indistinguishable to the naked eye". The proposed amendments to claims 16 and 31 clarify this by using the terms "visually detectable" and "visually indistinguishable", which was actually in the language of claim 1 as originally filed.

In the office action, it is argued that feature (i) is disclosed in Kaish since column 21, lines 51-53 describes that known organic fluorescent dyes may be used "that have absorption and emission in the infrared to near-ultraviolet range". It should be noted

that this range encompasses the whole visible spectrum and does not include the known primary ranges for ultraviolet electromagnetic radiation. Ultraviolet electromagnetic radiation has a wavelength between 10 nm to 400 nm approximately, of which near ultraviolet is in the range 300 nm to 400 nm. Visible electromagnetic radiation has a wavelength between 400 nm and 750 nm approximately. Infrared electromagnetic radiation has a wavelength between 750 nm to 1 mm approximately.

However the use of a dye which is capable of absorption and emission in this very broad infrared to near-ultraviolet range (300 nm to 1 mm) does NOT imply that the dye is actually illuminated with a particular wavelength. The Office Action references column 23, lines 27-31, which states that "circularly polarized radiation from a source 39, such as a laser beam, flashlamp, or light emitting diode at the absorption maxima of the dye is expanded and focused on the label 40." From this passage it can only be inferred that if the absorption maximum is in the IR range, for example, then light in the IR range is focused on the label. It does NOT follow that the fluorescent radiation emitted by the dye is in the visible spectrum, so that when illuminated by IR or UV radiation the identification fibers are visible to the naked eye, as required by feature (i) as amended.

The Office Action takes the position that feature (ii) is disclosed in Kaish by referring to column 3, lines 10-12. However it is respectfully pointed out that the cited passage refers to the prior art, rather than the system using dichroic fibers which forms the invention of Kaish. In any case, the passage requires the scanner to illuminate the fibers to cause them to fluoresce, and to discriminate against a fiber which fluoresces with the wrong color. Thus, the cited passage does NOT teach that the indicia are indistinguishable to the naked eye from the rest of the object when illuminated by visible light, as required by feature (ii) as amended.

As explained above, Kaish does not disclose a method in which the identification fibers are:

- visually detectable by the naked eye when illuminated by IR or UV, AND
- visually indistinguishable to the naked eye when illuminated by visible light.

In addition claims 16 and 31 has been amended to define that the method includes the steps of:

- creating a two-dimensional image of the electromagnetic radiation emitted by the identification elements in the sub-area; and
- using the two-dimensional image to measure the positions of the identification elements in the sub-area;
- both for the genuine object and for the object to be verified, and then comparing the positions with those of the genuine object.

In contrast Kaish uses a detector to measure the fibers' position within the paper as well as the dichroism, e.g. angle of polarization (see column 22, lines 58-67). This produces a three-dimensional mechanism, not a two-dimensional image as in the present invention.

The invention thus achieves a simpler secure system which requires only the storing of a two-dimensional photograph or camera image of the sub-area, rather than the complex scanned data of Kaish, which requires point-by-point scanning and calculation of the angle of polarization of each indicator fiber.

Request for Allowance

Based on the foregoing, reconsideration and withdrawal of the rejection of the claims in this application is respectfully requested.

It is thus believed that the application is now allowable and notification to this effect is earnestly solicited. Should the Examiner have any questions or comments regarding Applicants' amendments or response, he is asked to contact Applicants' undersigned representative at (215) 988.3303.

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